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U. S. Department of Agriculture.

Begonias



Green Tree Flower Gardens
316 West Chew Street
Olney
Philadelphia, Penna.

EVANSIANA

A Herbaceous Perennial Begonia

Begonia Evansiana will be a pride and joy from the time it is planted, about the first of June until frost. In the second season and every year thereafter, they will appear about the 15th of June and they begin blooming in August and continue until frost. They colonize well, and with the addition of fresh leaf mold each year, have been known to thrive in the same location for fifty years.

So often Evansiana is the solution of the problem as to the plant to use in that shady spot. Its requirements are the same as for all other Begonias, a light and porous soil, acid in nature, that will hold the moisture and will not become water-logged. Should you decide to make the bed under a tree, build up the bed, in other words, coarse gravel on the bottom, next a layer of peat is very desirable, then a layer of sandy soil, followed by your leaf mold. Make the bed at least a couple of weeks before you place your plants. A generous sprinkling of Arsenate of lead and sand mixed will assure you that there are no worms, etc., in the soil. Make your first planting about nine inches apart and in three to five years you will have one of the most beautiful beds of Perennial Begonia Evansiana that one could desire.

It grows about 2 ft. high, the foliage a beautiful light green with a smooth appearance above and on the underside the veins are bright red, sometimes the older leaves are entirely red on the underside. The flowers are large and rose pink, with male and female blooms, as in all Begonias, on a rather long stem. When they are through blooming in the fall, they start to die down, small bulbets form and drop onto the bed and these form new plants for the next season. There is one very important thing to remember:—DO NOT DISTURB THE BED IN THE SPRING—leave last year's bulbs or tubers to come up in their own way, along with the new bulbets. Usually the growth does not start to show until the ground is warm.

After the first heavy freeze cover the bed, but not too thickly, with coarse leaf mold, repeat this every year. If your winters should be too long and too cold for this perennial Begonia, just lift the tubers (soil and all) up in a fairly deep box, and keep in a cool atmosphere that does not reach freezing very often, and plant out again the next spring after hard freezing is over.

The species was discovered in 1804 by the English, and definitely named Evansiana in 1812 by them.

BEGONIAS

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In this booklet we have endeavored to more fully satisfy the increasing demand for additional information on Begonias and their culture.

We have been compelled to draw on practical experience for a great deal of the information contained herein as printed word on this subject is sadly lacking.

The conditions under which Begonias are grown in various parts of United States vary somewhat and we have endeavored to furnish the cultural information with that thought in mind.

If we can be helpful to you at any-time write us—the only requisite being to be sure to send a stamped self-addressed envelope for a reply.

January, 1938

We specialize in the sale of Unusual Varieties.

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Green Tree Flower Gardens
316 West Chew Street
Olney, Philadelphia, Penna.

GENERAL

Everybody likes Begonias. They're so easy to grow that any one can do it, in fact they have become the favorite house plant of many folk, because they thrive in that window that gets no sun, and in the outdoor garden have taken care of that shady place where we thought no plant would grow with any degree of satisfaction. Yet some of us have had just passive success with them, the reason for this being, that perhaps we did not understand the nature of Begonias and so did not know how to handle them.

They were discovered sometime during the 17th century and named in honor of Michel Begnon (1638-1710), a French Botanist. They are natives of Jamaica, Brazil, West Indies, East Indies, Guatemala, Mexico, Peru, Cape of Good Hope, South America and Florida. While these countries are located in the tropics and Begonias are tropical plants, they are not from the swamps of the tropics. They are remotely related to the Cacti, and from this fact one can readily understand why they should not be over-watered.

It is believed that the admiration for them in the United States dates back to the Landing of the Pilgrims, for the New England States have been responsible for the general acquaintance of some varieties common in England in the 18th century.

Male and female flowers grow on the same stem. The colors of the flowers are usually pink, white or red. The tuberous varieties have yellow and all the colors that are the result of the mixture of white, red and yellow. But the foliage, that is the beauty of Unusual Begonias, the coloring of the leaves, the texture, the size, the veining, the coloring underneath the leaf compared to that on the upper side, some speckled, some long, some wide, some narrow, some ruffled, some edges corrugated, some serrated. Well, if you have started a collection you are already aware of the interesting varieties.

Grow your Begonias in a North and Northeast window, although in the Middle Atlantic States, generally speaking, they will accept all the sun's rays there are available from November 15th to the latter part of January. But no longer as the rays of the sun strengthen perceptibly from the first of February. Deep window sills are much to the liking of Begonia plants, as the change of air from cold to warm is very gradual. If the room temperature is 70 degrees, the deep window sill will be around 65 degrees, and they thrive best between 60 and 65 degrees. Your Begonias are not partial to weather stripping—the air leakages around the window frame give them the well ventilated atmosphere they need. An even temperature is preferred by Begonias, 70 degrees is all they can stand, and they prefer less. Begonias are shade loving plants.

Remove the seed pods immediately after the petals have dropped from the bloom unless you wish to gather the seed, as the vitality of the plant is thereby much increased. Begonias thrive in a humid atmosphere, but it must be well ventilated. In a greenhouse, conservatory or muslin inclosed house, there must be plenty of ventilation with the humidity, otherwise foliage and stems will start to decompose. In addition to the humid atmosphere, the location as to light has much to do with their being happy. Give them all the direct light you can. In your window garden as well as the outdoor garden, they appreciate filtered sunlight—this means a larger plant in front of them in the house and outdoors where the sunlight filters through the foliage of a tree.

Begonias solve so many outdoor garden and window garden problems. Take that shady spot in the outdoor garden that never was satisfactory—it is no doubt the ideal spot for a Begonia bed or the place to sink your potted Begonias for the summer. A beautiful bed of tuberous rooted in the pots would no doubt thrive there. Your perennial Begonia Evansiana would give you so much joy and pleasure in that shady spot. Be sure that it is well drained, sand added to the soil will assist greatly in drainage. If you are building up a bed, place your coarse gravel or stone on the bottom and add your soil which must of course always drain quickly, but hold moisture. Peat is helpful worked into the soil, but not too much, as it water-logs.

Don't overlook the fact that all Begonias will show a rest period during the year, this is more pronounced with some than others, when they display this tendency encourage them for at least 4 to 6 weeks until they show signs of new growth, and after this, when growing activity is well pronounced, fertilize them with liquid cow manure. Very little evaporation takes place when the plant is resting, so water sparingly during this time. Keep your plants shapely. The sharp fingernail of your thumb against the forefinger is an excellent appliance for pinching out the top of your plant. This will encourage the foliage to grow down the stalk and improve the appearance of your Begonia, generally making a stronger and bushier plant. Should they get leggy during their blooming period, cut them back sharply into a well shaped plant when through flowering.

Never cultivate the soil in the top of a pot of a Begonia plant, Begonias send hair like roots toward the surface, and the root system is disturbed by cultivation. This applies to your tuberous rooted, your perennial Evansiana, your potted Begonias, also your bedding Begonias, add leaf mold to the top of potted Begonias and moist mulch in your outdoor beds.

The same variety will differ somewhat according to its location, soil condition, etc.

Potting and Soil

Thoroughly wash and dry in the sun all pots before using them. They should be soaked in clean water just before using, otherwise they absorb moisture from the soil, which should be available for the roots. In all pots above 3" in size, place a layer of coarse gravel or broken pieces of pots in the bottom of the pot—if the plant should be overwatered this will prevent the roots from laying in water.

There are many formulas given for potting soil for Begonias; the following has given us satisfactory results: $\frac{1}{3}$ sand (river bottom or builders), $\frac{1}{3}$ oak leaf mold, $\frac{1}{3}$ well rotted cow manure and a generous sprinkling of tobacco dust and bone meal scattered over the pile before mixing it thoroughly. A word as to leaf mold when spoken of in relation to Begonias: it means leaf mold, not peat moss, not humus, not super-humus, nor sphagnum moss, but leaf mold gathered preferably from an oak forest. If oak leaf mold is not obtainable, leaf mold from any forest (except a pine or evergreen forest) can be substituted, as it is usually acid. If you cannot obtain well rotted cow manure, dehydrated or dried cow manure can be used in these proportions: 3 parts leaf mold, 2 parts sand, 1 part dried cow manure and a generous sprinkling of tobacco dust. If there seems to be no other way than the use of peat moss for or in place of leaf mold, be very watchful, as it becomes water-logged very easily and decomposition of the roots begin and your precious Begonia plant passes out before you realize it. Particularly is this true in the Eastern part of the U. S., where you live below 35 degrees of latitude, because you have a much longer season for your plants to be out of doors, and a heavy rain would bring about the condition described above unless the pot was set on top of the soil and in a well ventilated location.

The component parts of potting soil in the different locations naturally differ, so experiment a little and you may find a formula that will give you better results than the above. One suggestion is to substitute sandy loam for the sand; another to make sure the sand you are using is not alkaline. But bear this in mind, that your soil must be porous and well drained, and nothing has been found to take the place of the virgin leaf mold. Keep your potting soil or compost heap (if you have one) moist at all times, and be careful to water with rain water, not hard water or water loaded with chlorine (which is usually present in the water supply of large cities). Plain leaf mold is always a welcome addition to the top of the soil in your potted Begonias. Many of the Horticultural Societies in the east have a Committee which does soil testing for their members—if you have access to something like this

you can ascertain definitely whether the soil which you use for your Begonias is acid and high in nitrate content.

When a well rooted cutting is removed from the propagating bed into a 1½" or 2" pot, straight leaf mold usually gives very satisfactory results. When the plant is ready for a shift to a 2½", the soil formula previously given is used. Starting with the 3" pot, liquid fertilizer can be used. From 3½" and on up sandy garden loam can be mixed in, taking the place of the sand to a large extent or entirely. But do not increase the size of the pot more than one-half inch each time until you get to four inch. In transplanting, endeavor to make sure there is no air space between the old soil and the side of the pot—this can be accomplished with the use of a thin stick (8 to 10 inch plant stake makes a good tool.) Use this to press the soil down toward the bottom of the pot, keeping the stick close to the sides of the pot so that the root system of the plant is not disturbed or broken. The time for transplanting is when a good network of roots show on the soil when tapped out of the pot. A rule which has given good results here is "Crowd your roots for foliage and bloom."

PROPAGATION

Cuttings

All Begonias can be propagated from cuttings. Tuberous rooted varieties seem to be more difficult than others; more skill being required. Evansiana gives weak sickly looking plants as a result of propagation from cuttings.

Cuttings or slips may be made at any season of the year, but best results are obtained if the cutting is taken when the growth of the original plant is active. Spring and summer seem to give best results. Many of the corm varieties start easily in the fall, during October, November and December. All of the corm varieties and Rex's will root from the leaves. It takes more patience and is a longer process, but a much bushier plant is the result. Some amateurs root the leaves in water, placing the stem of the leaf (leaving the leaf on) in a glass of water in a well ventilated place, not too cool. As long as the leaf and stem do not decompose, you can expect that it will root, but it will take several weeks. The method used in propagating from leaves is to lay the leaf flat on the top of a pot filled with sand or leaf mold. You can reduce the size of the leaf considerably and thereby conserve space by cutting it back to where the veins of the leaf are fairly heavy. Then pin these ribs down into the soil or sand with hairpins or light weight bobby pins. Moisten well, allowing the soil to take up the moisture from the bottom and cover the pot with a piece of glass. Place over a radiator that does not get too warm and keep from strong light. Be sure

that you do not allow the soil to dry out. A good plan is to set the pot on moist pebbles in a container and place water in the container about $\frac{3}{4}$ of an inch to an inch above the bottom of the pot each morning. Endeavor to use rain water if possible, but distilled water surely.

Slips or cuttings can be made from any Begonia plant. Fill a container with sand or leaf mold, or the two combined, or peat moss. Be sure it is thoroughly moistened. Make your cuttings preferably from green wood, about three inches is a good length. Your bottom cut should be directly below a joint, your top cut at least one-half inch or more above a joint. There should be at least two joints in the cutting and more if possible. But remember to keep the cutting around the three inch length. Take off most of the leaves, one or two seem to assist the cutting to start roots. Place your cuttings about one-half their length in the soil in the cutting bed, then press the soil around the cutting and apply a spray of water to settle the soil around it. Take your cuttings from healthy plants, they should be taken prior to the blooming period rather than after, because much substance is taken from the plant by the blossoms. In cutting up your corms, use at least two nodes or joints and press them in to about $\frac{3}{4}$ of the cutting, leaving the top of the corm exposed. Keep the soil in the cutting bed moist at all times, but not soggy. A temperature of 65 to 70 degrees is best; in the late fall and winter months, bottom heat is very helpful.

Pot the cutting as soon as it shows a nice ball of roots, being careful when you take it out to neither disturb the roots nor shake the soil from it. Don't hesitate to nip the top of your rooted cuttings as soon as they have taken hold in their new home, the pot. This will make for more substantial plants as well as more beautiful ones, more symmetrical in shape. Keep this practice up and you will win the approval of your friends who perhaps told you they were not so fond of Begonias.

PROPAGATION

Seeds

January is a good month in which to plant Begonia seeds, but if you have never tried to grow Begonias from seed, be sure that you are endowed with patience and perseverance. Begonia seed is very fine and very fragile. Never roll it between you first finger and thumb when planting to make an even distribution, as this will crush it. If you are gathering Begonia seed, try not to crush the dried pod that has held it, but knock it out on a clean piece of white paper.

A plan which seems to result in a fair percentage of success is to take a brick, or half a brick, and place it in a container with sufficient water to come half way to the top of the brick, then spread a thin layer of soil on the top of the brick,

and when this is moist, distribute your Begonia seed over it, either with a seed sower or by tapping the paper lightly. Place the container over a radiator where it will not be too dark nor very light, and keep the brick moist by keeping water in the container; this in turn will keep the soil moist and the fertile Begonia seeds should show signs of germination after about eight days. The small plantlets usually come up very close together, so transplant on the third or fourth day, otherwise they will damp off. You will perhaps lose some of these, but if they damp off, you will lose them all. In about three weeks they will be ready to transplant again. You will have to be very careful that they do not become too moist, and that you have a humid atmosphere well ventilated. But no matter how great your success or how little, you will feel well repaid for your efforts as the plants begin to thrive. Two very important things to remember are to use rain water for moistening (hard water can be softened by using $\frac{1}{2}$ oz. powdered alum to one gallon of water and allow to settle, using the water off the top), and never to let your seed bed dry out.

If you are desirous of obtaining seed from a certain plant, remove the male flowers in bud, as this will enable the plant to have more fertile seed and the general growth of the plant will not be retarded as much. Seeds of tuberous rooted Begonias planted in February will bloom in late August and make excellent tubers for the following year. If you have a method of growing Begonia seed which is successful, no matter how unique or unusual it may be, don't change it.

WATERING

The kind of water used is of considerable importance in raising Begonias. Rain water is preferable if one is fortunate enough to live in the suburbs or in the country so that a barrel can be placed to receive the drippings from the roof. This water is good for all of your house plants. In some of our Eastern cities, chemicals are used to purify the water supply, and this water is not to the liking of Begonias. If rain water is not available, use $\frac{1}{2}$ oz. of super saturated alum to one gallon of water, stir well and let it settle, using only the water from the top.

Spray your Begonias with clear water at room temperature every morning early, unless the day is damp and mucky. Do not spray until the water runs off the foliage, but only until you can see a mist over it. Keep the soil in the pots of your Begonia plants on the dry side, watering only when necessary. Moisture in the atmosphere is very helpful also. The fine spray recommended will not harm your paints or carpets. If you are using a deep window sill for your Begonia plants, it is suggested that a galvanized sheet iron or copper pan be made to fit the window, and a thick

GREEN TREE FLOWER GARDENS

layer of pebbles— $\frac{1}{4}$ inch size—spread on the bottom and your pots set on these. Then keep the pebbles wet and this will do much toward creating a moist atmosphere, which is helpful not only for the plants, but for living conditions generally. Where plants are distributed individually throughout the house, if pebbles are placed in the saucer and kept wet it is helpful. Glazed pots or containers with bottom drainage are being used with considerable success by a number of people.

FERTILIZERS

It is a very easy matter to overfertilize your Begonias. A good sprinkling of Bone meal or Vigoro (both of which are slow acting) in your original soil formula is very good, then a little stimulation just prior to the time the blooming season is at its height.

Never use lime in connection with Begonias. They love acid soil. If you wish to experiment with humus do so very sparingly. Floranid and Nitrophoska are much to their liking. Never place dry fertilizer on the top of the soil in a pot of Begonias, because the small hair like roots grow toward the top and these would be harmed. Never use a liquid fertilizer when your plant is showing a retarded growth. Occasionally water made from steeping tobacco stems or dust in water may be used as a purifying agent for the soil and as a gentle stimulant. Do not use this and a liquid fertilizer at the same time.

PESTS

Begonias are immune from most of the pests that effect other plants. Mealy bug is perhaps its worse enemy, however if you eliminate ants you will find that most of your mealy bugs have disappeared. Ant traps are clean, easily used, inexpensive and very effective. Mealy bugs make their nest or habitation usually under the dried stipules which come at the joints of the plants. Keep these picked off and if you find mealy bugs there take a tooth pick with a swab of cotton on it, dip in soapy water and wash the affected part thoroughly.

Never allow the leaves to drop off and lay on the soil as this makes a hiding place for pests. If you see signs of worms in the soil, a very thin sprinkling of arsenate of lead over the top of the soil will eliminate this in a short time and will not affect the plant. Use this sparingly, take only what will lay on the tip of a case knife and tap onto the soil. If you have slugs or snails use a mixture of 1 tablespoon of Paris Green, 16 heaping tablespoons of bran and 6 tablespoons of molasses; spread this around wherever the pests are found. If this is used in a conservatory or greenhouse make sure that mold does not start. By taking a search light after dark for a week or so they can be cleaned out by destroying them as you see them moving around. Camphor balls around are also a good deterrent for ants.

REX VARIETIES

Rex—meaning King—truly names them for they are the kings of the Begonia family, because of the beautiful and varied coloring of their leaves. The Rex Begonia is a native of South America, introduced into England in 1857, from Berlin, Germany. The majority of Rex varieties have a decidedly dormant period, so when they start to drop their leaves one by one in late December, keep the soil a little drier and watch for signs of renewed growth. Renew the soil and start them off, and by July they will be beautiful again and will remain that way until late fall.

Rex need little or no fertilizer, will stand a little warmer temperature than most Begonias, and a little more water on the soil. It too is grateful for a spray of water (room temperature) over the foliage. Many successful growers use straight leaf mold for potting soil; rather coarse. Rex varieties can be readily started from leaves. Use the method suggested in propagating. The varieties seen most frequently in the east are Carmalita, His Majesty, Emerald, Velour, Robert George, Bronze King.

CALLA LILY BEGONIA

The most beautiful and the most difficult of culture is the Begonia Calla Lily. Like all others of its kind is it well worth the effort to cultivate.

The most essential points are to have a very porous soil. (regular potting soil for Begonias) so that the water will drain through quickly without water-logging; to keep very dry—almost as dry as the winter flowering or Christmas Begonia; to keep cool; and to spray the foliage every morning. A tin container seems to give the best results. If you are growing it in a deep window sill, keep it close to the window. Heavy mucky weather—it sure does not like and many times will apparently die down to the top of the soil, but do not throw your root out, keep quite dry but don't allow the soil to dry out completely and when the weather gets cooler and the air drier, you will be rewarded with new shoots.

It displays most of its growing activity during the spring and summer. In the winter the foliage shows very little white, even the leaves are almost altogether green. In and around Philadelphia it will stand a very little of the morning sun until about the 15th of February, then plenty of direct light thereafter. During the summer, place it in the coolest and best ventilated spot you can find.

TUBEROUS ROOTED BEGONIAS

Tuberous rooted Begonias were first discovered in Central and South America. But their development since they were found is almost beyond conception. The flowers are the most beautiful of the Begonia family and you will be well repaid for all the time and effort you spend on their cul-

ture. Their colors are dark red, rose, copper, crimson, orange yellow, salmon-pink, scarlet, and white, according to the variety, some with single and some with double blossoms.

In purchasing your tubers, use for your standard, quality rather than price, and if possible, buy them before the last of March. Two year old tubers seem to produce best results. It is well to moisten the tubers before planting in the propagating bed, by placing them between two pieces of wet (but not dripping) burlap, for about 24 hours. To prepare your propagating bed; any of the following mixtures are used for starting the tubers: all leaf mold, one-half each leaf mold and river bottom sand; or all peat moss. Whatever is used must be thoroughly moistened before placing the tubers in it. Start the tubers about February 15th. Arrange your tubers, depressed side up in the propagating soil, with about one-half the tuber submerged, not too close together, place in a cool (60 to 65 degrees) shady or dark place well ventilated and keep barely moist until there is a good sprout or sprouts approximately three inches high, and a good root system. Do not force your tubers either with bottom heat or a warm atmosphere as the vitality of the plant is considerably lessened if you do so.

When they are ready for removal from the propagating bed, prepare your potting soil, the following formula is one that is frequently used: 3 parts (oak if possible) leaf mold, 2 parts well decayed cow manure, and 1 part river bottom sand, with a generous sprinkling of bone meal or Vigoro and tobacco dust. Now remove your tubers carefully from the bed so that the root system is not disturbed and place in a pot not larger than is necessary to accommodate the root growth. Use clean moistened pots. The tuber should be covered with soil from one-half inch to an inch, give one thorough wetting, a good plan being, to let the pot stand in water until it is thoroughly moistened to the top of the soil. After that do not keep too wet but keep in as humid an atmosphere as possible. After the plant is well established in its first transplanting, stake it. Pinching of plants in their early stages will make for shapely specimens. Tap the plant from the pot and if there is a good carpet of roots around the soil it is ready for another transplanting and so on until it reaches a five or six inch pot. Fertilize every

ten days or two weeks with liquid fertilizer, after it becomes established in the first pot. Be sure that the soil is moist before applying the liquid fertilizer. If your desire is to have the largest and most beautiful flowers possible, then remove the buds of the female blossoms. If you want to gather seeds, remove the male flower buds. Your plant will not bloom as long if you are allowing it to seed.

In the Eastern part of the United States, Tuberous Rooted Begonias are more successfully grown in pots than in beds. The outdoor bed of soil seems to give too much room for the roots to spread themselves, but with the pot sunk into the ground, the roots are confined and a better plant the result. The soil in which the pot is sunk must be well drained and the roots kept moist. The pot also gives the added advantage of being removable to a new location if it does not seem to be thriving. They are shade loving plants and must be placed in a shady well ventilated place (No wind) and unless the weather is damp and mucky, sprayed early in the morning. They will stand filtered sunlight or light through a trellis provided it is the early morning sun. Direct sunlight will blight the bloom and blast the bud and also spot the foliage. Your pots of Tuberous Rooted Begonias will do well in your porch boxes that are on the Northern or Northeastern side of the house. The late afternoon sun is neither helpful nor beneficial to them.

In the fall when the foliage starts to turn yellow, do not water as often, and very gradually stop watering altogether, when they seem entirely dead on the top, lay the pots on their side in a dry place where the sun will get at them in the morning for at least a couple of weeks and then your bulbs will be ready for storing. During this time do not allow the pots to be rained on. Now as to storing the tubers. Some store them in the soil in the pot successfully, others take the bulbs out and wash the soil off the roots and dry them off for a couple of weeks, allowing the early morning sun to shine on them and store them one to a tin can of dry peat moss, placing the cans in a cool dry place with a temperature ranging from 45 to 55 degrees. Tubers must rest at least three months before starting them again.

Tuberous Rooted Begonias along with all other varieties pay good dividends for the care and attention given them.

DESCRIPTION OF VARIETIES

ABEL CARRIERE—Has a clear silver leaf, with the veins broadly outlined in green, the under-side is green with all veins in deep red; as the leaves mature they are flushed with purple; flowers in terminal sprays of rose pink.

ACUMINATA—A tall shrubby grower with reddish stems; small acuminate leaves are toothed and serrate, rough hairy; a winter bloomer with buds rose pink, opening into a white flower with a golden center.

ACUTE ANGULARIS—Sport of *Angularis* chief difference in stem which is more deeply and more closely grooved; leaves much broader, whole plant heavier and more richly colored.

ALBO COCCINEA—Springs from a creeping root stalk with smooth shining leaves on short stems; flower stalk is coral red bearing 4 petaled flowers, white above and coral red underneath.

ALBA PERFECTA—Small grower of *Rubra* type; pleasing light green leaves slightly ruffled; dainty white flowers.

ALBA PERFECTA GRANDIFLORA—Same as *Undulata*.

ALBA SCANDENS—Smaller light green leaves than *Glaucocephylla* with white flowers.



Argentea Guttata

ARGENTEA GUTTATA—Very shrubby in habit, medium grower; dark and heavily silver spotted leaves; greenish white flowers; Coralline Lucerne type.

ARGYROSTIGMA—*Rubra* type; smooth light green leaf with very large round spots of white; large pink flowers.

ARTHUR MALLETT—One of the most beautiful Begonias known; leaves—dark red bronze overlaid with silvery pink spots, deeply indented, very dark veins, metallic lustre; underneath is dark garnet red; flower sprays of clear rose pink; a rather difficult subject.

ASCOTIENSIS—Same as *Bertha De Chateau Rocher*.

BABY RUBRA—Same as *Picta Rosea*.

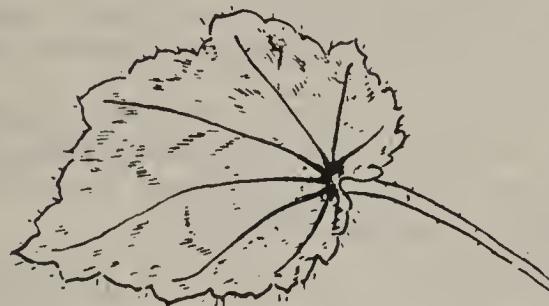
BA YERN—Small long leaves, similar to *Preusen*, but spotted; pink flowers scattered through foliage.

BEEFSTEAK—Same as Feastii. Upright Beefsteak same as Flambeau.

BELLARGIO—Smooth, medium dark ivy green leaf, underside shading of red; flowers bright carmine. Seedling of Coralline Lucerne.

BENNETT RUBRA—Medium grower; narrow dark green leaves; typical flower cluster, seed pod salmon pink, with lighter petals.

BERTHA DE CHATEAU ROCHER—Glossy green, sharply pointed leaves carried close to stem; upright grower; scarlet flowers in terminal clusters.



Bertha Von Lothringen

BERTHA von LOTHRIGEN—Smooth medium green leaves, peculiarly veined in a chocolate color. Low growing and branches well. Winter bloomer with shaded pink flowers.

BERTHA STEUART — Rubra type; resembles Lugano but leaves a darker bronze and flowers a lighter shade of pink.

BOLIVIAN SPECIES—Light green leaves, underside faintly flushed with red; whole plant is lightly covered with a brown tomentose; fuchsia like scarlet blooms.

BRAZILIENSIS—Round, light cedar green leaf, with a hair line edge of red, rather coarsely netted, veined; flowers small white on a tall stalk; low growing species.

BUNCHII—Ruffled and crested form of Feastii; leaves a much lighter green.

CALLA LILY—Basal leaves are clear light green, those above heavily spotted with white, upper ones pure glistening white shaped like miniature Calla Lillies; flowers are rose red; without a doubt it is one of the most beautiful of the Begonias and one of the hardest to grow.

CARMEN—Bronze foliage somewhat resembling Semperflorens or wax type in appearance; flowers bright pink. Very good bloomer.

CAROLINEAFOLIA—Light green upright stem as thick as one's wrist with white spots on it; light green, perfectly palmate leaves, there are 8 leaflets or fingers, each on a 2" stem, quite circular in shape with wavy edges, the pedicels and underneath of leaves are covered with a brown tomentum; no branches on the trunk, new branches come from the root; flowers pale pink, on a 3 ft. peduncle.

CATHAYANA—Chinese Species resembling an upright Rex; medium grower, well branched; stems covered with white hairs; leaves pointed, very velvety, center and border—dark ivy green, narrow zone of glaucous green, ruby red veins, under side of leaf a deep red velvety color; flowers a soft orange color.

CATHCARTII—Original seed from India resembles Rex, growing from a rhizome; leaves, thin, light green, broad dark green veining; flowers—deep yellow with scarlet shading outside.

CHIALA ALBA—Leathery leaves, similar to Fruiticosa species, good branching habit, with larger leaf than Chiala Rosea; flowers white.

CHIALA ROSEA—Much smaller grower than Mrs. W. A. Wallow, and less richly colored; leaves are narrower and more pointed than Fruiticosa species; flowers are pink tinted.

CRYSTALLINA — Vigorous grower; prolific bloomer of deep rose pink flowers with conspicuous white spot on Ovary; similar to Coralline Lucerne; leaves dark olive green, heavily spotted with silver, deep crimson underneath.

CLEMENTINA—Same as Faureana.

CODELARGO—Foliage dark green, heavily silver spotted, deep red underneath, flowers light pink. Coralline Lucerne seedling.

COMPTA—Long pointed leaves, greyish green, with conspicuous grey center edges of leaves ruffled, underside quite red; small white flowers in clusters; tall grower.

COCCINEA—Glossy dark green leaves; drooping clusters of scarlet flowers.

CORAL BEGONIA—Same as Sandersonii.

CORAZON DE JESU — Mexican name for Fuchsioides Coccinea.

CORBEILLE de FEU — Same as Bertha De Chateau Rocher.

CORALLINE DE LUCERNE—The largest of this type; large leaves, dark green upper, sometimes silver spotted, red underneath; large clusters of deep pink to red flowers sometimes 8 to 10 inches across.

CREDNERI—Same as Hairy Thurstoni.

CUPHEA—Same as Cypraea.

CYPRAEAE—Leaves similar to Nelly Bly, but rounder with one distinct point, creped and lighter green.

DAWN—Odd and rare, a seedling of the Abel Carriere, gray, narrow pointed small leaves.

DECORUS—Rubra type, more branching; white flowers, with brownish seed pod, sweet scented.

De LESSEPS—Similar to Pres. Carnot; pointed lobed leaves, serrate edges, silver spotted above, red underneath; branching grower; flowers—pink tinted, almost white.



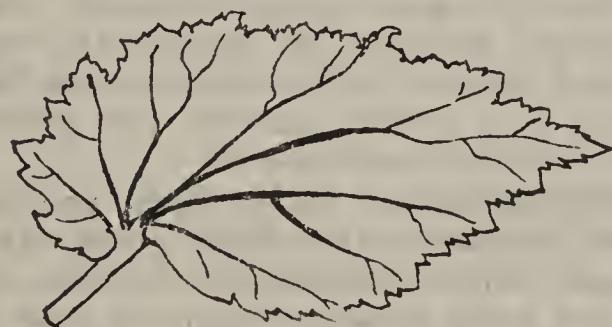
Diadema

DIADEMA—Maple like deeply 5 parted leaves, bright green with rows of silver white dots on each side of the mid-ribs; flowers are white faintly flushed with pink; an old variety; somewhat dormant in winter.

DIADEMA ERECTA—Leaves resemble Palmata more than Diadema, and more deeply cut and white spotted.

DICHORSANDRA—Same as Palmifolia.

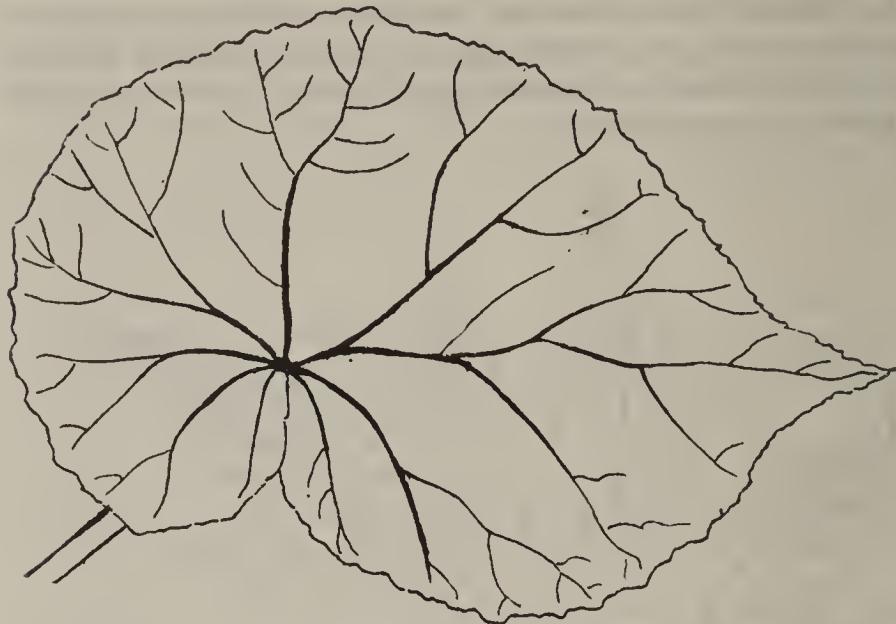
DICHOTOMA—Same as Palmifolia.



Diggswelliana

DIGGSWELLIANA — Bushy grower; green crinkly leaves, somewhat like holly, edges wavy and serrate; flowers pink and white—winter bloomer; a newer introduction has darker leaves and almost red blooms.

DOMINICAN SPECIES—Leaves are small, shiny, bright green, deeply veined; small white flowers in close bunches; from Dominica, British West Indies.



Dorothy Grant

DOROTHY GRANT—Very large, round dark leaves, and so shiny as to appear varnished, deep red on under side; white flowers in upright clusters, summer bloomer.

DREGEI—Similar to *MacBethii*, but leaves are more deeply serrated, darker—especially in center; bulbous root, winter bloomer; white flowers in profusion.

DRURYI—Apparently belongs to the *Viaude* group, larger grower than *Nelly Bly*, and smaller than *Neely Geddis*; leaves are glossy, dark green, borne on a red stem, deep red underside.

DUCHARTREI—Larger leaves than *Haageana* and under red color confined to veins; new growth of the hairy leaves comes from a peculiar hood-like sheath which dies off to a brown color; flowers white on long stems.

ECHINOSEPALA—Similar to *Metallica*, chief difference is smaller leaves.

ELAINE—Coralline Lucerne type, with long narrow, glossy, dark green leaves, above, red underneath; lower leaves white spotted, the upper leaves plain, margins of leaves are wavy and ruffled, and remain half folded so that the red of the under side shows against the green; large clusters of pink tinted flowers.

ECUADORENSIS — Very thick, upright stem, native of Ecuador; thin light green almost palmate leaf (with inconspicuous white markings toward the point when young) cut into 10 to 12 points; a red star is formed by the veins, leaf slightly flushed with red underneath, underside has fringe at base of leaf; flowers crepy white to pink in small clusters with wavy petals and many stamens. (*Braziliensis* has been incorrectly named *Ecuadorensis*.)

ENGLERI—A striking species of tropical Africa. Thick succulent, pale green stem heavily spotted with large red spots, red hairs growing on the red spots, stem appears very furry; leaves, shiny emerald green, deeply and evenly serrate, red veined and spotted, glistening with white hairs; long pendulous clusters of pink flowers.

EVANSIANA—Tuberous rooted, hardy in Philadelphia section, if a few leaves for protection are used during the winter months; a species from Java with large dark green leaves, and large showy pink flowers in great profusion during September and October. See also inside front cover.

FAUREANA—Tall upright grower, cane like growth; large palmate leaves of 5 lobes, the 2nd being much longer than the others; leaves deeply veined, reddish at the center of the leaf, leaves also blotched with silver; flowers waxy-white borne in clusters.

FAUREANA, variety **METALLICA** — Leaves heavier, coarser, lighter green, and lobes more nearly round than Faureana; the silver splashes are more like daubs from a brush; flowers same.

FEASTII—Leaves thick, shiny, dark green, round like a water lily pad, red under; flowers light pink in clusters, well above foliage; very hardy; procumbent type.

FEASTII HELIX—Same as Feastii—exception, lobes of the leaves spiralled.

FISCHERS RICINIFOLIA — Procumbent type with smaller leaves than Ricinifolia, light green, serrate hairy edge, pale green disc at base; tufts of hairs on stem and under side along veins; pale pink flowers on long stems; very attractive.

FLAMBEAU—Upright form of Feastii, glossy dark green leaves, much thinner; pink flowers on long slender reddish stalks; very desirable.

FLORIBUNDA ROSEA — Same as Multiflora Rosea.

FLORIDA SPECIES—Round light green leaves, similar to Verschafeldtii, but obtained in Florida; blooms in yellowish white panicles.

FRANCONIS — Small, round, light green and rough leaves, green stems; small white flowers in small clusters at top of branches; succulent stem.

FOLIOSA—Very small leaves, growing flat from the stem like a fern; loveliest of all the small leaved group; flowers miniature white on single pendant.

FREDA GRANT—Similar in color and form to Mrs. W. A. Wallow, but on a much smaller scale.

FROEBELLE—A Tuberous specie, single scarlet, bearing its bloom in clusters; winter bloomer.

FRUITICOSA — There is a large and varied group under this generic title, with leaves ranging from just green to almost black upper, mostly brilliant red underside; flowers white and tinted white.

FUCHSIOIDES COCCINEA — Sharply pointed leaves, similar to Fuchsia, carried close to stem, larger than Multiflora Rosea; pendant blooms of transparent scarlet, similar to Fuchsia.

FUCHSIOIDES variety **MINIATA** — Same as Foliosa.

FUCHSIOIDES variety **ROSEA**—Same as Multiflora Rosea.

GENEVA—Similar to Coralline Lucerne, shorter and more bushy grower, leaves rounder and more spotted, blooms nearer pink.

GILSONII—Branches from the root, stout stem of dark green streaked with whitish lines; dark green glossy leaves are deeply serrate, pointed and fluted, underside reddish and very hairy; the pedicels are red at the base, and covered with long white hairs, the male light pink flowers appear to be double.

GLABRA—One of the 3 with trailing habit, but a shorter rounder leaf than *Glaucophylla*.



Glaucophylla Scandens

GLAUCOPHYLLA SCANDENS—Smooth, light green leaf, deeply veined, edges slightly ruffled; flowers a pale brick red, the buds striped with white; trailing stems sometimes 6 to 8 ft. long.

GLOIRE de LORRAINE — Bulbous, Christmas flowering, profusion of pink flowers well above the foliage, after blooming foliage ripens and falls, and bulbs remain dormant until August. Melior and Lady Mac are a much improved variety of this type.

GOGOENSIS — Peltate, olive green mottled leaves, most distinctive, divided by veins just like a spider web; low grower from a rhizome.

GRAPE LEAF—Same as Speculata.

GUATAMALA—Procumbent type, darker leaves than Sunderbruckii, and lighter than Nigricans; dark brown spots in young growth of foliage; one of the so-called "Star" type; tuft of fringe on stem on underside of leaf; cluster of deep pink flowers on long stalk.

GUINEA'S WING—Leaves like Alba Picta but longer, and more heavily spotted with silver, a wavy almost ruffled edge, young leaves are reddish brown at edge; rose pink flowers.

GUNNERAFOLIA—Same as Palmifolia.



Haageana

HAAGEANA — Scharffiana Group; upright grower; large hairy leaves, green above red under; flowers white tinted pink pendent in large clusters like purses in bud; winter bloomer.

HAIRY THURSTONI—Cross between Metallica and Scharffiana; leaf is shiny, rounder than Viaude tapers down to a point; underside flushed red, prominent red veins; pink flowers.

HELEN—Leaf similar in size and shape to Pres. Carnot, but lighter showing little or no flushing of red; free summer bloomer of white flowers from leaf axil.



Helen W. King

HELEN W. KING—Coralline Lucerne seedling of medium growth; large dark metallic leaves, sharply angled at the top, generally silver spotted; pink blooms carried in bunches close to main stem.

HERACLEIFOLIA—A Mexican variety of the star type. Rose colored flowers, January to March.

HERACLEICOTYLE—Same as Mrs. Townsend.

HOLLYHOCK—Same as Martiana.

HOUGHTONI — Similar in habit but more bushy than Haageana and more delicately formed, leaves are more deeply pointed, but hairy growth and coloring the same; flowers similar to Haageana.

ILLUSTRATA—Resembles speculata to some extent, more graceful, somewhat taller; leaf is more pointed, dark green with lighter green blisters; tinted red underneath and hairy on edges.

IMMENSE — Similar to Ricinifolia, but with flatter, greener leaves on shorter stems.

GREEN TREE FLOWER GARDENS

IMPERIALS—Low small growing, very attractive; leaves are wide brownish green, with irregular bands of bright green along veins; flowers insignificant.

IMPERIALIS variety **MACULATA** — Brown leaves with broad irregular veining of light green.

IMPERIALIS variety **SMARAGDINA**—Velvety leaves of bright cedar green.

INCANA—Similar to *Peltata*, leaves not quite as wooly; clusters of white flowers.

INCARNATA — Cane like growth; lance-like leaves with heart shaped base, serrate edges, a light green and quite thin; small pale pink flowers, winter bloomer.

INCARNATA GRANDIFLORA — Handsomer plant with much larger flowers of deeper pink.

INDIAN MAID—Foliage blackish-brown, metallic lustre; flowers a brilliant scarlet. Excellent bloomer.

INDIAN RICINIFOLIA—One of the so-called stars, usually 8 points to the leaf. Pink flowers. Corm type.

JINNIE MAY—Laurel like leaves, small and blunt; small dainty red blooms.

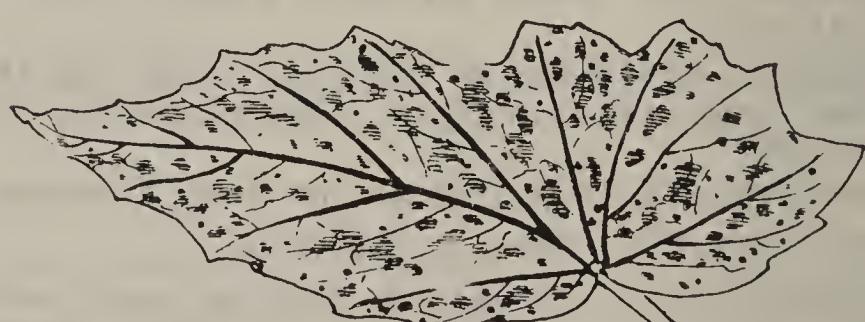
JESSIE—Large leaves 4 to 5 inches wide and 6 inches long with ruddy overcast, red hairy and serrate edge; similar to *Templinii* particularly in the characteristics of producing on leaves and stems tiny leaves; clusters of pale pink flowers in winter.

KEWENSIS — Similar to *Undulata*, but with longer, lighter green leaves with delicate red edge and less ruffled; small white flowers.

KETCH—Same as *Fischers Ricinifolia*.

LECCO—Foliage dark green, heavily silver spotted, red coloring on underside. Flowers pink. Its growing habits are good.

LINDLEYANA — Similar to *Palmifolia*, leaves thinner in texture and flatter, a more refined grower; small white flowers.



Lobata Variegata

LOBATA VARIEGATA — Handsome plant larger leaf than Guinea's wing, large white spots; white flowers; cane-like growth.

LOBULATA—Same as *Palmifolia*.

LOMA ALTA—A seedling of *Scharffiana*. Foliage dull dark green, upper side hairy, dull, dark red and hairy on underside. Large cluster of deep pink flowers. Very good.

LUCENDRO—Pointed leaf of yew green, heavily silver spotted with silver tips, red blooms with white center to seed pod. Seedling of Coralline Lucerne.



Lugano

LUGANO — Seedling of Coralline Lucerne, branches more freely, smaller and darker with sharp point at the top, faintly silver spotted, edge sharply serrate; profusion of deep pink blooms.

LUXURIANTS—Odd and rare, and not like a Begonia in appearance; the palmate leaves carried like an umbrella having from 7 to 17 ribs, each about 6" long and 1" wide with finely serrated edges, a rosette of small leaves encircle them where they join the stem; leaves and stems are hairy; small fragrant white flowers in clusters.

LUXURIANT — Small grower, woody stems; leaves shaped somewhat like a maple with a bronze cast, deeply serrate, upper surface covered with silky white hairs, underneath-garnet red, very smooth, young leaves are spotted with silver; creamy white flowers on such short stems that they are hidden by the foliage—which is the chief attraction.

MacBETHII — Low bushy grower with clear green, fine ferny leaves; white flowers; very attractive.

MacBETHII: PINK — Finer leaves than MacBethii and more sprawly; pink flowers.

MACROPHYLIA—Same as *Nelumbifolia*.

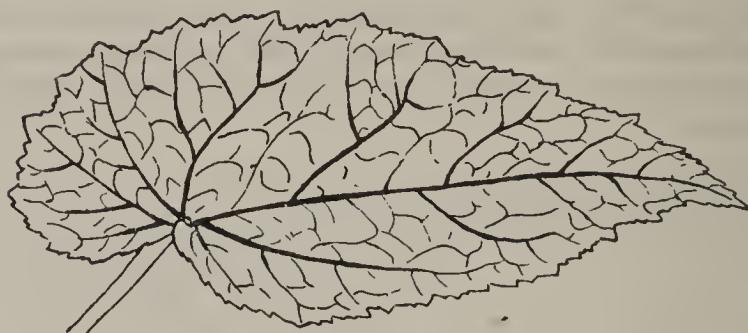
MADAM FANNY GIRON—A desirable Begonia, leaves similar to *Incarnata*, but larger and darker green; larger flowers a brilliant red.

MAGGIORE—Foliage deep dull yellow green, red underneath. Flowers dark red. Coralline Lucerne Seedling.

MANICATA — Very attractive; heart shaped, smooth green leaves, edged with a hair line of red, a thick collar of red hairs where leaf and stem join; winter bloomer of pale pink flowers.

MANICATA AUREA—Similar to Manicata but with yellow and white blotches on leaves; pale pink flowers.

MANICATA AUREA CRISTATA — Similar to Manicata Aurea, but with edges of leaves crested and ruffled; all three are of procumbent type.



Marguerite

MARGUERITE — An old favorite, dark green leaves with a metallic lustre, hairy, garnet red veining underneath; flowers are blush white with pink hairs.

MARGARITACEAE — Similar to Arthur Mallett; leaves are steel gray, thick with short red hairs on surface; flowers larger and paler pink.

MARIAN—A corm type with large leaves, deeply serrated. Pink flowers.

MARJORIE DAW—Much branched grower needing support; smooth light green leaves with edge entire; flowers in large pendant clusters of rosy red; rubra type.

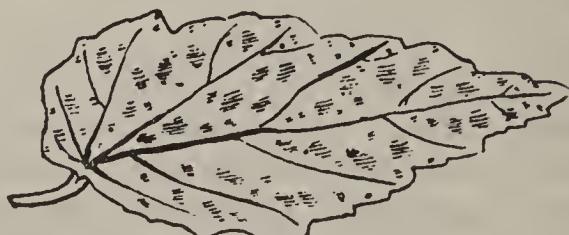
MARJORIE GIBBS—Xmas or winter flowering Begonia. Undoubtedly the best hybrid that has come of the Gloire de Lorraine type. Starts blooming about November 15th, and continues until middle of March or first of April. A mass of lovely deep pink flowers. Keep the soil in pot decidedly on dry side in a temperature of 65. Spray early morning on clear dry days.

MARTHA — Rubra type; leaves lighter green than Betha Steuart, saw tooth lobe; small deep red flowers.

MARTIANA — Not like any other tuberous Begonia, either in flowers or tuber; has the appearance of miniature mallow pink single hollyhocks set closely on the 3 or 4 ft. high stalk; summer grower for the garden.

MARY — Rubra type resembling Picta Rosea; long narrow light green leaves, bronze underneath with red veins; profusion of open dainty clusters of red blooms.

MAYBELLE E — Corralline Lucerne type; Begonia red blooms with white center to seed pods; leaf dark green, heavily silver spotted. Very good.



Medora

MEDORA—Restrained branching type of intermediate growth; leaves small heavily silver spotted, almost as small as Alba Picta but sharply serrate; flowers in pink clusters from leaf axils.



Metallica

METALLICA—Scharffiana group; beautiful dark veined, hairy, shiny leaves, metallic in appearance; excellent pot plant; free bloomer—white buds are thickly set with red hairs.

MRS. MARY PEACE—Procumbent type; palmate leaves smooth dark green on top, serrate edge, hairy, also some hair on underside and stem; related to Ricinifolia.

MRS. SCHINKLE—Rubra type, larger grower than *Picta Rosea*, but same type of flower—orchid in color. Very desirable.

MRS. SHEPHERD OF VENTURA—Has been used much in hybridizing. Marjory Daw is a seedling.

MRS. TOWNSEND—Procumbent type; leaves, dark shiny metallic green above, lobed and toothed, edge slightly hairy, underneath is red, borne on short stems; small pink flowers, well above the foliage. A good pot plant.

MRS. W. KIMBALL — Brownish green leaves, rather crinkly and serrate, often silver spotted; clusters of light pink flowers.

MRS. W. S. KIMBALL—Leaves are light green, flat on red stems, red spot at leaf center, veins faintly red, finely serrated edge, wavy and outlined with red, top somewhat hairy, underside red veined and flushed in red; begins blooming in February with large clusters of pale pink.

MRS. W. D. HARNEY—Rubra type; long narrow light green leaves; pink and white blooms; vigorous grower.

MORGANO — Of the Scharffiana group. Large leaves, very hairy, very attractive. Good grower, large pink flowers.

MULTIFLORA ROSEA—Leaves somewhat thick, glossy dark green, small carried close to stem; fuchsia-like blooms of delicate pink; semi-vigorous, needs some sun.

GREEN TREE FLOWER GARDENS

NELLY BLY — Scharffiana Group; a Viaude seedling; leaves of a distinct grey green, short and broad, deeply veined, under side of leaves richly colored, short red stems; tinted pink flowers. Good pot plant.

NEELY GEDDIS — Scharffiana group—another seedling of Viaude; large, long dark green leaves, more pointed than Scharffiana, stem and under side are a deep red, all covered with white hairs; flowers crepy white having the peculiarity of a rudimentary leaf up with the bloom panicle.

NELUMBIFOLIA — Large light green peltate leaf resembling lily pad, on a long stem growing from a short rhizome; flowers—small white to pink.

NEUCHATEL—Foliage dark, dull green, with subdued silver spots. Red flowers with lighter petals.

NIGRICANS—One of the so-called “Stars”; leaf deeply cut, frequently 9 lobed, leaves 8 to 12 inches across, lobes black green with a light green center, covered with hair; clusters of pink flowers; procumbent type.

NINE POINT—One of the “Stars”, with 9 points to the leaf. Pink flowers. Corm type.

NITIDA—Glossy dark green leaves, quite wavy; of intermediate growth; constant bloom of dainty white flowers in upright clusters on reddish stems; good pot plant.



Odorata Alba

ODORATA ALBA—Round glossy green leaves, not wavy; frequent blooms of white flowers delicately scented; makes a good spreading plant.

ODORATA ROSEA—Not as vigorous a grower as Alba; pink flowers; some lists give this description for Nitida.

OLBIA—Same as Luxuriant.

ORRELL—Seedling of Coralline Lucerne; very light green leaves with ruffled edges, beautifully spotted with silver, flowers cherry red, quite erect; very desirable.

PALMATA—Same as Faureana.

PALMIFOLIA—Thick strong stem, ringed at the joints; large lobed, glossy green, netted veining, leaves on green stems, rather dark spot on older leaves at junction of stem and leaf; beautiful white flowers in clusters—winter bloomer.

PAUL BRUANT—Stout stem resembling procumbent type, leaves rather dark green, bronzy cast, deeply serrate; under surface lighter green and hairy; large clusters of pink flowers on rather red hairy stems. Most beautiful.

PEACH LEAF—Same as Washington Street.

PEARCEI—Tuberous; dark green velvety leaves; profusion of small sulphur yellow flowers.

PEARLE de LORRAINE—Same as Bertha Von Lothringen.

PELTATA—Low grower; round leaves like a water lily, covered with a white fuzz, also stems, and also its white flower; a unique and attractive type.

PETIOLATA—Same as Palmifolia.

PHYLLOMANIACA—Templinii a sport of it. Some authorities say it is the same as Jessie. The name is from 2 Greek words meaning leaf crazy, and all of its relatives show this characteristic.

PICTA ALBA — Smaller grower than Picta Rosea; heavily spotted, small narrow dark green leaves; black stems; greenish white flowers.

PICTA ROSEA—Larger leaf than Alba Picta, faintly spotted; Rubra type; rose colored flowers in profusion.

PICTAVIENSIS—Very similar to Viaude, but of much smaller growth, leaf and flower.

PLATANIFOLIA—Incorrect name for Faureana.

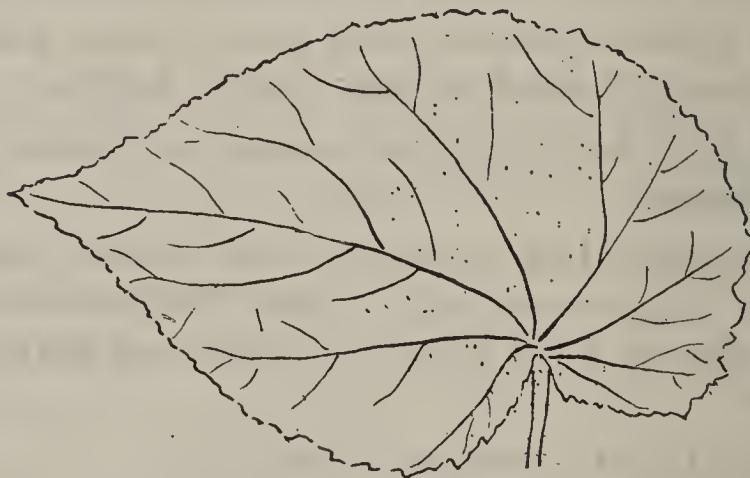
POLLARD RED—Same as Madam Fanny Giron.

PRESIDENT CARNOT—Very similar to Coralline Lucerne, but leaves are without spots and light green, flushed red underneath, flowers mostly female of a brilliant red. Worthy of cultivation.



Preusen

PREUSEN—Of German origin. Very bushy, intermediate growth; green leaves $2\frac{1}{2}$ " to 3" long, and $1\frac{1}{2}$ " wide; pink tinted flowers distributed through foliage; a constant bloomer; an excellent pot plant.



Prunifolia

PRUNIFOLIA — Scharffiana type; large dark green leaves, plum color underneath, red stems, all hairy; drooping white flowers in clusters.

RED POLLARD—Same as Madam Fanny Giron.

REX—This specie is of the Corm or Procumbent type, and are otherwise known as the "Painted Leaf"; there seems to be an unlimited number of varieties.

RICHARD ROBINSON — Larger leaf than MacBethii beautifully splotched with silver, white flowers.

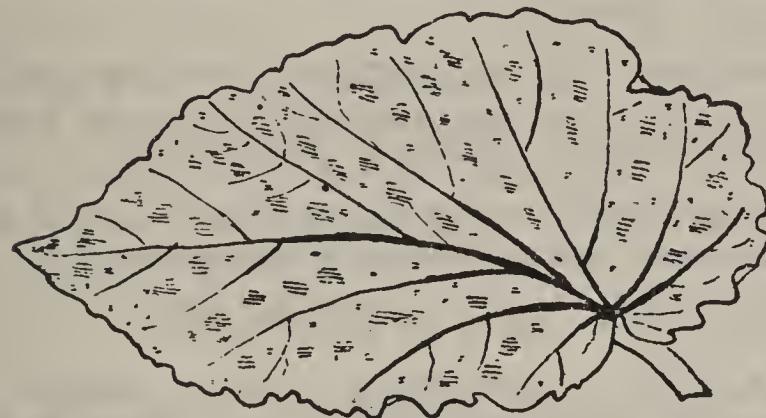
RICHARDSONI — Leaves longer and more feathery than MacBethii; low growing branching type; flowers white in profusion, likes shade.

RICINIFOLIA—Procumbent type; big bronzy leaves resembling in shape the Castor bean, hairy also stems; bunches of pink flowers as much as 18" across, on stalks 4 ft. long; fine tub specimen.

ROBUSTA—Growth is fountain effect, stands considerable sunlight; small ruddy, crinkly leaves, with red stems; pink to red flowers.

ROBUSTA DECKERS — Flowers and flower stems are larger and longer than Robusta, darker leaves and of a more upright growth.

ROSEA GIGANTEA — Strong upright grower; flowers of deep rose to red around Christmas time, large round shiny leaves of green with bright red spot at junction of leaf and stem.



Rosie Murphiski

ROSIE MURPHISKI — Stems almost black, in short joints like bamboo, leaf very metallic in appearance with crinkled edges; pink flowers; cane type.

ROSSI—Rubra type, much lighter color leaves than Coralline Lucerne, with bronzy cast; light pink flowers.

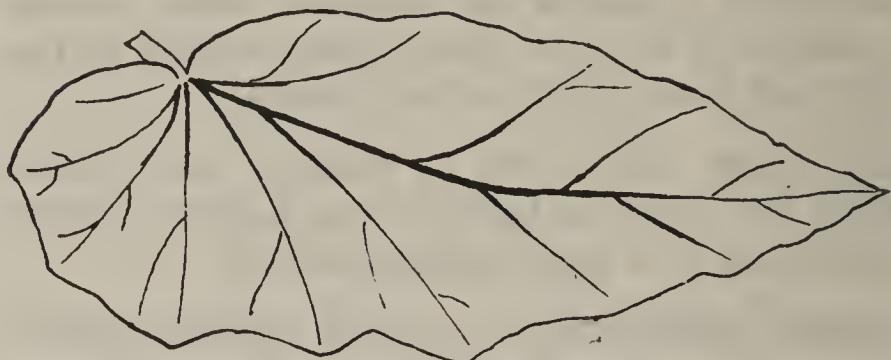
RUBELLA—Procumbent type, very attractive; leaves have smooth upper surface bronzy green color, veins light green, many ruddy spots on upper side, underside deep red and hairy; long leaf stalk is covered with hairs which are red at base and white at top; pink flowers.

RUBRA DIELYTRA—Rubra type; long narrow light green leaves; flowers strongly resemble those of Bleeding Heart; desirable.

RUBRA ODORATA—Rubra type; long narrow light green leaves; deep rose colored flowers—fragrant.

RUBRA PINK—Angel wing type or Rubra; long narrow light green leaves; soft pink flowers in large pendant clusters.

RUBRA RED—Same as Pink only flowers are Brilliant Scarlet.



Sachsen

SACHSEN—Of German origin closely related to Preusen; more bronzy foliage, coppery red blooms, not quite as bushy as Preusen. A most beautiful Begonia.

SANDERSII OR SANDERSONII—Low grower; small light green serrated leaf; crimson flowers in small clusters similar to Fuchsiodes.

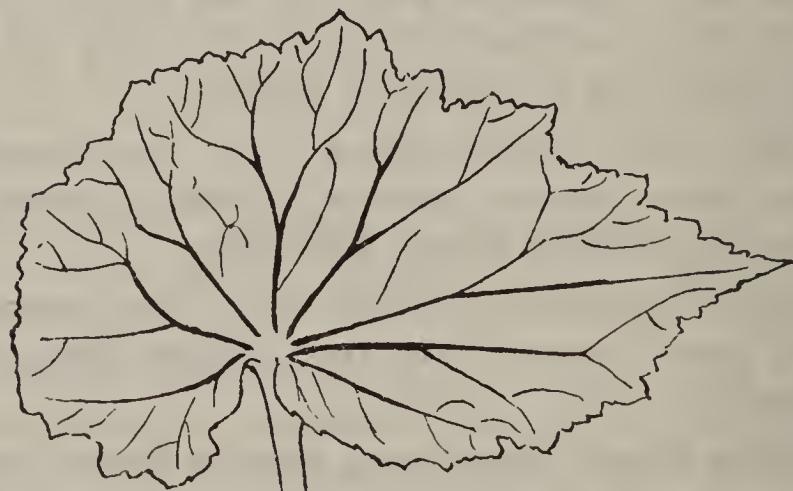
SANGUINEA—Dark green, leathery leaves, deep red beneath, white flowers in late winter.

SCHNITZERI—Same as Sutherlandi.

SCHARFFI — Scharffiana group; similar to Haageana; stems and underside of leaves a deep red.

SCHARFFIANA—A sturdy grower, the entire plant is covered with soft white fuzz or hair; thick round leaves, dark green above, Indian red underneath; new growth emerges from a hood-like sheath (which dries off brown); many of Scharffiana relatives have this sheath; flowers are white borne on a long stem which divides like a pair of horns.

SCHMIDTIANA — A Brazilian species, good house plant, thrives and blooms constantly with little care; bushy low grower; olive green, velvety, ruffled leaves on top, dark red with green margins beneath, pinkish white flowers on red stems.



Scotch Luxurians

SCOTCH LUXURIANS — Soft, grey green leaves; succulent stem, persistent bloomer of white flowers in panicles. Very good.

SEMPERFLORENS—Commonly known as Wax Begonias. The flowers come in red, pink and white. It is pre-eminent in the变ability of its varieties. But they are so much alike in their beautiful wax-like green foliage and continuous bloom that the color of the flower is the only distinguishing feature. In addition to being a most desirable house plant, they are an excellent bedding plant for the shady place in the outdoor garden.

SESSILIFOLIA—Same as Luxurians.

SHASTA—Rubra type—very good; large light green leaves; pure white flowers in clusters.

SHRIMP RUBRA — Rubra type; long narrow light green leaves; flowers of a soft shrimp shade.

SOCOTRANA — Semi-tuberous, winter-flowering species, that dies down in Spring, leaf is dark green with a depressed center or water cup; rose pink flowers in profusion at blooming time. Most of our Christmas Begonias are related to this species.

SPECULATA — Procumbent type; leaves dull green with irregular grey spots or blisters; flowers—creamy white; hardy.

SUNDERBRUCKII — Procumbent type; one of the so-called "Star"; palmate leaves, dark green almost black, striped through center with beautiful light green, 7 is the usual number of lobes; rose pink sprays of flowers on long stems. Very good and easy to grow.

SUPERBA SPECIES—Cross of Faureana and Rubra, flowers similar to Coralline Lucerne, light pink shading to rose, others pure white; leaves have the deep cut edge of the Faureana, long point of the Rubra, clear light green, red veined on underside, young plant sometimes has mottled leaves.

SUPERBA KENZII—Serrate, pointed, long light green leaf, sometimes flaked with white, white flower clusters.

SURETTA—A most attractive seedling from Coralline Lucerne. Medium sized foliage, somewhat the shape of a maple leaf. White bloom flushed with pink. Bushy habit.

SUTHERLANDI — Semi-tuberous with dainty green leaves on red stems; tiny orange colored flowers.

SYLVIA — Smooth, long, pointed, waxy, green leaves; small pink flowers from leaf axils; seedling of Incarnata.



Templinii

TEMPLINI—Large, shiny leaves, blotched with white, yellow and red, wavy ruffled and fringed; light pink flowers in clusters during the winter; hardy, stout grower, makes fine large plant; closely related to *Phyllomaniaca*—as it grows tiny leaves and plantlets on its leaves and stems.

TEUSCHERI—Similar to Pres. Carnot, but of more branching habit, red coloring on underside of leaves confined to along veins.

THURSTONI — Smooth, glossy, dark green leaves, red underneath, darker than *Duchartrei*; similar in growing habits, pink flowers; makes a beautiful pot plant.

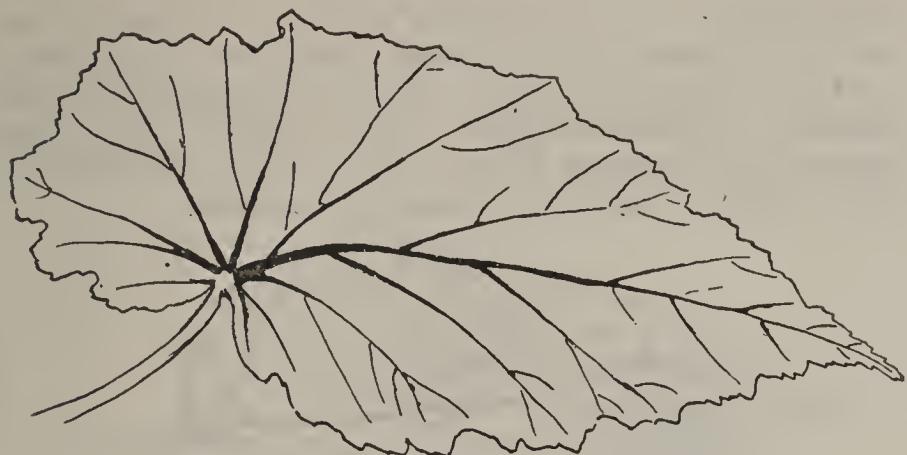
TROUT—Same as *Argentea Guttata*.

TUBEROUS ROOTED BEGONIAS—The majority of catalogues list the varieties grown most successfully; any which have been described in this list are more or less unusual.

ULMAFOLIA—Rough, thick leaves, exact in size and proportion to an elm leaf, similarly veined; has a fleshy stem 4 square, green; flowers small white in clusters; fairly tall grower.

UNDINE—A seedling of *Odorata Alba*, leaves similarly waved, flowers tinted and waved, bushes nicely in growing.

UNDULATA—Small, compact, well branched grower; leaves long sharply pointed, shiny green, somewhat hairy; young leaves are bronzy with red edges; small white clusters of flowers from leaf axils.



Vedderi

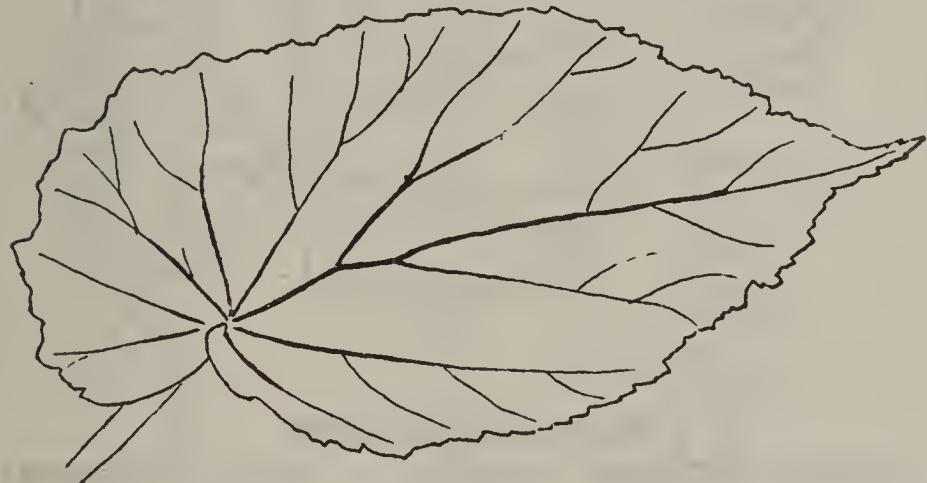
VEDDERI—A seedling of Compta, but lacks grey centre on foliage; leaves broader at base and shorter, but with wavy edge; small white blooms in large close clusters; very good.

VENOSA — Larger, rounder leaf than Peltata, dark green so thickly covered with white hairs that it seems frosted; plant has large stipules of pale red strongly veined in brown; clusters of white flowers on long red stems.

VENUS—Leaves lobed and toothed, darker than Mrs. Townsend, but very similar; flowers almost the same.

VERSCHAFELDTII—Large smooth green lobed leaves on long fleshy stems, thick root stalk; upright pink clusters of flowers in early Spring. Thick heavy root stalk.

VESUVIUS — Same as Bertha de Chateau Rocher.



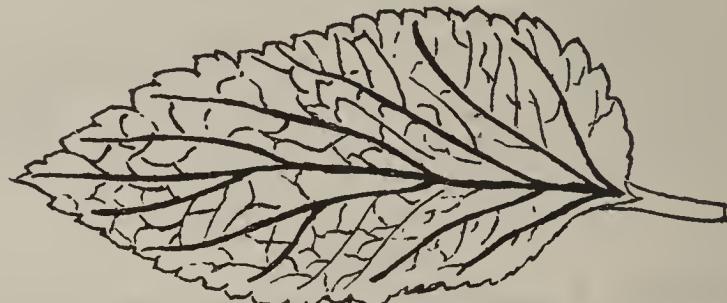
Viaude

VIAUDE—Long pointed leaf; taller grower than Scharffiana; purse-like buds in clusters on long stems which divide like a pair of horns, some hair on top of leaf, but decidedly more on underneath side, all stems, quite hairy, ranging from green to a dark red.

VITAFOLIA — The Mexican specie is a tall grower with substantial stems; irregular heart shaped leaves, shiny green above, rusty underneath; small flowers tinted pink in large clusters.

VITIFOLIA—The Brazilian specie has substantial green stems streaked with white; has a large glossy leaf similar in shape to the grape, underside is quite hairy and veins are rusty brown; winter bloomer of small white flowers.

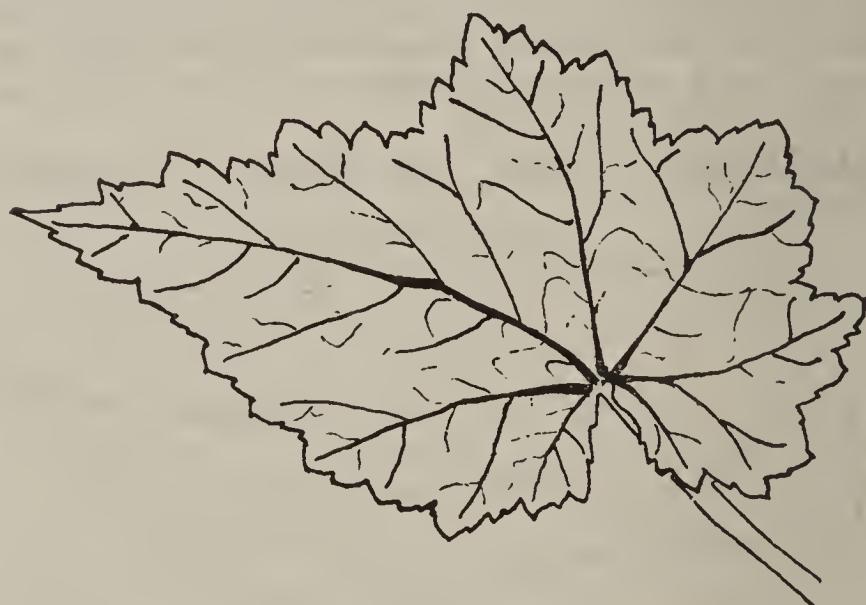
WALLOW—A new variety and a very good one, healthy grower, and a good brancher; long, dark, narrow, pointed leaves, on long stems, growing almost perpendicularly, wavy edge, dark red underneath; whole plant has a slight growth of hair; white flowers in upright clusters.



Washington Street

WASHINGTON STREET — Reasonably tall, branches well; bright green leaves shaped like a peach leaf, halves of the leaves are almost equal, edges serrate, slightly flushed on the under side; winter bloomer of white flowers in bunches. It seems to be in a class by itself.

WELTONIENSIS ALBA—Small, rather light green leaves, pointed and serrated; similar to Weltoniensis Rosea but a larger grower; flowers white from the leaf axil; semi-tuberous.



Weltoniensis, Rosea

WELTONIENSIS ROSEA — Semi - tuberous; pointed, serrated rather small leaves, with a prominent red spot at junction of leaf and stem; flowers a beautiful shade of pink; makes a fine pot plant.

WESTPORT BEAUTY—A Begonia resembling the Semperflorens type in foliage; very compact in growth, with very double pink flowers.

WETTSTEINI—Branching, miniature tree type; brilliant bunches of red bloom, wavy green leaves.

ZEBRINA — A more vigorous grower than Compta; has square stem; long pointed leaves, greyish green markings; small white flowers in large close clusters.

ZURICK—Yew green leaf, red underneath, light pink flowers. Seedling of Coralline Lucerne.

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